

Vegetative reproduction in Selaginella.—Miss BANCROFT¹⁶ has investigated the reproductive “tubers” of two species of *Selaginella* from India. In *S. chrysocaulos* there occur budlike structures at the tips of some of the vegetative branches; while in *S. chrysorrhizos* the stem apices forming the “buds” repeatedly fork, rhizophores often occurring in the fork between two branches. Miss BANCROFT investigated the behavior of both these reproductive structures, which differs in details, since in one of the species the “tubers” remain at the surface of the ground; while in the other they are developed underground, at the ends of filamentous vegetative branches.—J. M. C.

Anatomy of some xerophilous ferns.—MARSH¹⁷ has made an anatomical study of certain xerophilous species of *Cheilanthes* and *Pellaea*, material having been obtained chiefly from the United States. Such well marked leaf “adaptations” as hairs or scales on the lower surface, inrolled margins, thick cuticle, and palisade parenchyma are described. The xylem features are discussed in detail, and one of the interesting conclusions is that “the petiolar structure, the stem anatomy, and the greater output of spores per sporangium, all point to *Cheilanthes Fendleri* as a near approximation to an ancestral type, from which *C. gracillima* and *C. lanuginosa* have been derived.”—J. M. C.

Sphagnum bogs of Alaska.—RIGG¹⁸ has noted the peculiarities of the flora of some Alaskan peat bogs and finds that while sphagnum occurs in many different habitats in Alaska, only where there is an absence of drainage do bogs accompany it. The peat in the bogs visited had a maximum depth of only 2.5 ft. Aside from the sphagnum, *Empetrum nigrum* is the most abundant and uniform in its occurrence, but *Ledum palustre*, *Kalmia glauca*, *Oxycoccus oxycoccus*, and *Drosea rotundifolia* are among other characteristic species. The bogs occur surrounded by treeless areas, by tundras, or by coniferous forests, and vary much in area.—GEO. D. FULLER.

Ecological aspects of Paleozoic vegetation.—DACHNOWSKI¹⁹ has given an account of the probable vegetational features and ecological conditions of Ohio from Ordovician through Pennsylvanian time. The most important part of this paper is the discussion relative to the prevailing xeromorphy of Paleozoic land plants. It has long been known that most of these xeromorphic

¹⁶ BANCROFT, N., Note on vegetative reproduction in some Indian selaginellas. *Ann. Botany* 28:685-693. *pl.* 49. *figs.* 7. 1914.

¹⁷ MARSH, A. S., The anatomy of some xerophilous species of *Cheilanthes* and *Pellaea*. *Ann. Botany* 28:671-684. *figs.* 11. 1914.

¹⁸ RIGG, G. B., Notes on the flora of some Alaskan sphagnum bogs. *Plant World* 17:176-183. 1914.

¹⁹ DACHNOWSKI, A., The ancient vegetation of Ohio and its ecological conditions for growth. *Ohio Naturalist* 11:312-331. 1911; *Amer. Jour. Sci.* 32:33-39. 1911.